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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,269	06/13/2001	Lian Soon Tan	56139USA5A.002	5381
32692	7590	01/11/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			ZEMEL, IRINA SOPHIA	
			ART UNIT	PAPER NUMBER

1711

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/880,269	TAN ET AL.	
	Examiner	Art Unit	
	Irina S. Zemel	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-23 is/are pending in the application.
- 4a) Of the above claim(s) 17-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-16 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Rejection of claims under 25 USC 102 and 103 as being unpatentable over Lissant is withdrawn in view of the arguments filed by the applicants on 11-1-2004.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3-16 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over von Bonin, Will in combination of Dyer (all of record) or Principles of Polymerization by Odian, J. Wiley and Sons, 1981, pp. 205-09 (hereinafter "Odian").

As discussed in the previous office action, while the von Bonin et al and Will patents produce water in oil or reversed oil in water emulsions to produce their foamed compositions they can use polymerizable monoethylenically unsaturated monomers alone in their process and it would appear that they do not have to use their disclosed polyfunctional ethylenically unsaturated cross-linking monomers in order to achieve making their foamed products. Note the working examples of the references. The references do not expressly teach use of photoinitiators or combining photoinitiators with other initiators. However, use of photoinitiators in place or in combination with expressly disclosed redox or thermal initiators for the polymerization of the disclosed free-radically polymerizable monomers would have been clearly obvious for an ordinary artisan for purposes of better reaction control or for purposes of environmental safety, or simple for known functional equivalency of various free-radical polymerization initiators. This fact is supported, for example, by the disclosure of Dyer who teaches equivalent

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use of various initiators for polymerization of water-in-oil emulsions, or by teachings of Odian, who discloses that use of photoinitiators (including photoinitiation of some thermal and redox initiators) is well known in the art of free-radical (emulsion or other) polymerization and has its advantages for simplicity or reaction control. Thus, use of photoinitiators alone or in combination with other radical initiators would have been obvious for an ordinary artisan absent showing of unexpected results that can be clearly attributed to the use of photoinitiators. So far, the record lacks evidentiary support of any unexpected results, especially in view of the original disclosure and the original claims that do not recognize unexpected superiority of photoinitiators in the claimed process.

Claims 1, 3-16 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyer of record.

As discussed in the previous office action, Dyer discloses making a water in oil foamed polymer from a monoethylenically unsaturated polymer. However since the claimed process does not contain a drying step to remove the resultant water created within the pores of the polymer, the claims read on the uncured polymers produced in their processes. Note col. 20 lines 50-20 of Dyer et al. The reference is focused on production of crosslinked polymers, however making of non-crosslinked polymers is within the purview of the reference and would have been obvious from the disclosure of the reference as a whole. Note especially column 9, lines 42-43, reciting that the monomer mixture also "optionally comprises one or more crosslinking agents," column 6. lines 21-23, reciting that polymers "according to the present invention can be made

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using other compatible comonomers in addition to the polyene and optional crosslinking agents." Therefore, the references teaches uncrosslinked products as well. Furthermore, the reference expressly teaches throughout the disclosure that addition of crosslinking agent and crosslinking the foams is desirable for various reasons such as increased tensile strength or increased glass transition temperature (Tg). Elimination of the component and its function would have been obvious for the applications where such high Tg or other increased properties are undesirable. Therefore, production of uncrosslinked polymers would have been obvious from the overall disclosure of Dyer reference.

Response to Arguments

Applicant's arguments with respect to claims 1-16 as rejected over von Bonin or Will have been considered but are moot in view of the new ground(s) of rejection.

Applicants arguments regarding differences between the disclosure of the claimed invention and Dyer are discussed and answered in the rejection over Dyer set forth above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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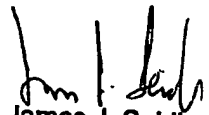
TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ISZ


James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700